

AMENDED CLAIMS

5 1. An ink having a viscosity less than 20 mPa.s (cP) at 20°C, comprising the components:

- (a) a water-dissipatable polymer having colorant attached thereto through a covalent -O- link, wherein the water-dissipatable polymer has a Mn less than 25,000; and  
(b) a liquid medium.

10 2. An ink according to claim 1 wherein the water-dissipatable polymer is obtainable by the reaction of a water-dissipatable polymer with pendant hydroxy functional groups with a colorant having a functional group capable of reacting with hydroxy functional groups.

15 3. An ink according to claim 1 wherein the colorant is attached to the water-dissipatable polymer by means of a reaction between a hydroxy group on the polymer with a colorant precursor thereby forming a covalent bond therebetween and subsequently converting the colorant precursor to a colorant.

20 4. An ink according to claim 1 wherein the colorant is attached to the water-dissipatable polymer by means of a reaction between a hydroxy group on the polymer with a bridging compound thereby forming a covalent bond therebetween and subsequently reacting the bridging compound with a colorant or colorant precursor.

25 5. An ink according to claim 4 wherein the colorant precursor is converted to a colorant by a process comprising a diazotisation reaction.

6. An ink according to claim 5 wherein the diazotisation reaction comprises the steps:

- 30 (i) diazotising an amino group in the colorant precursor using a diazotising agent; and  
(ii) coupling the product of step (i) with a coupling component forming an azo group therebetween.

35 7. An ink according to anyone of the preceding claims wherein the water-dissipatable polymer is an olefinic polymer.

40 8. An ink according to claim 7 wherein the olefinic polymer is obtainable from the polymerisation of one or more olefinically unsaturated monomers having water-dispersing groups, and one or more olefinically unsaturated monomers having hydroxy functional groups optionally in the presence of one or more olefinically unsaturated monomers which are free from water-dispersing and hydroxy functional groups.

9. An ink according to any one of the preceding claims wherein component (a) is completely dissipated in component (b).
10. An ink according to any one of the preceding claims which comprises from 0.5 to 50 parts of component (a) and from 50 to 99.5 parts of component (b), wherein all parts are by weight and the number of parts of (a) + (b) = 100.
11. An ink according to any one of the preceding claims wherein component (b) comprises water and an organic solvent.
12. An ink according to claim 11 where component (b) comprises from 40 to 95 parts of water and from 2 to 60 parts of water-miscible organic solvent.
13. An ink according to any one of the preceding claims for use in an ink jet printer.
14. A process for forming an image on a substrate comprising applying thereto an ink using an ink jet printer, characterised in that the ink is as defined in any one of the preceding claims.
15. A paper or an overhead projector slide printed with an ink as defined in any one of the preceding claims.
16. An ink jet printer cartridge, optionally refillable, containing an ink as defined in any one of the preceding claims.